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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,373	09/16/2003	John Zavilla	H0610.0349/P349	9408
24998	7590	01/17/2006	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			BROWN, JENNINE M	
2101 L Street, NW			ART UNIT	
Washington, DC 20037			PAPER NUMBER	
			1755	
DATE MAILED: 01/17/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/662,373	Applicant(s) ZAVILLA ET AL.	
	Examiner Jennine M. Brown	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Terminal Disclaimer

The terminal disclaimer filed on 9/23/05 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,797,853 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. [1] as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. PA 2002 01415, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application.

The oath or declaration states that PA 2002 01415 is the priority document and the subject matter disclosed in said document does not give proper support for the

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specification submitted in the US Patent Application nor the claims depending therefrom.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nemeth, et al. (US 6288281 B1).

See entire document. Nemeth, et al. disclose a catalyst composition comprising an ionic liquid catalyst with N-containing heterocyclic and/or aliphatic organic cation (col. 3, l. 56-63), an inorganic anion derived from metal halides (col. 3, l. 52-56) or mixed metal halides (col. 7, l. 33-37) and one or more Bronsted acids (col. 7, l. 23-27). The ratio of component (a) to (b) is also disclosed (col. 3, l. 45-51). Known anions disclosed are AlCl_4^- , Al_2Cl_7^- (col. 1, l. 37).

Claims 1 and 8-10 rejected under 35 U.S.C. 102(b) as being anticipated by Wald (US 3501416 A).

See entire document. Wald discloses a process of isomerization of a paraffin such as hexane in the presence of a melt organic salt mixture catalyst containing N-methylpyridinium tetrachloroaluminate and a metal halide (aluminum chloride – table 5, example 3 uses an isomerization not cracking process) and the cracking catalyst formed

in situ from AlCl_3 and an alkylpyridinium (col. 3, l. 69-col. 4, l. 32) is the same as that claimed. The percentage of the two components is found on pages 2-4.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Keim, et al. (WO 00/16902 A1).

Keim, et al. disclose an ionic liquid (page 5, l. 24-page 6, l. 5) comprising an organo nitrogen (page 3, l. 26-31) or organo phosphorus (page 4, l. 4-9) compound with a Bronsted acid with a ratio of less than or equal to 1 used as an acid catalyst (page 1, lines 7-13, 17-20).

Response to Arguments

Applicant's arguments filed 9/23/05 have been fully considered but they are not persuasive.

1. Nemeth, et al.

Nemeth, et al. does disclose both expressly and inherently a catalyst composition comprising an ionic liquid catalyst comprising an N-containing heterocyclic and/or aliphatic organic cation and an inorganic anion as disclosed above. See also the abstract of Nemeth, et al. which states, "The acidic ionic liquid comprises a Lewis or Bronsted acid in combination with a quaternary nitrogen containing compound."

The specific Bronsted acids claimed and disclosed are selected from the group consisting of triflic acid, sulfuric acid, phosphoric acid and mixtures thereof (col. 7, l. 23-27). The specific ionic liquids claimed and disclosed are n-butylpyridinium chloride-aluminum chloride, 4-butyl-2-methyl-imidazolium chloride-aluminum chloride, 4-butyl-2-

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methyl-imidazolium chloride phosphorus hexafluoride-aluminum chloride.” Each of the elements required in the independent claim are expressly and inherently present, therefore the rejection has been maintained.

2. Wald, et al.

Wald et al. discloses in Example I the use of 8 grams of HCl added to the ionic catalyst (tetramethyl ammonium chloroaluminate and aluminum chloride) and n-hexane (col. 3, l. 40), HCl being the Bronsted acid – the molecular entity capable of donating a proton to a base. Since each of the claimed elements are present both inherently and impliedly, the rejection has been maintained.

3. Keim, et al.

Keim et al. claim an ionic liquid selected from the group consisting of aliphatic amines and heterocyclic amines, and claim a Bronsted acid where its anion is selected from BF_4^- , CF_3SO_3^- , H_2PO_4^- , HSO_4^- , meaning that the proton is present but would be the cation for said anionic group (page 13).

4. US 6797853 B2 and 10/387, 545 – the rejection under obviousness double patenting has been overcome by the Terminal Disclaimer filed by applicant on 9/23/2005, therefore the previous rejection has been withdrawn.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

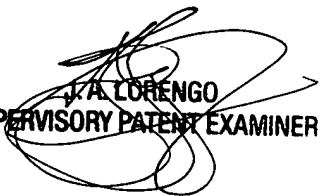
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (571) 272-1364. The examiner can normally be reached on M-R 9:30 AM - 7:30 PM; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jmb


J.A. LORENZO
SUPERVISORY PATENT EXAMINER